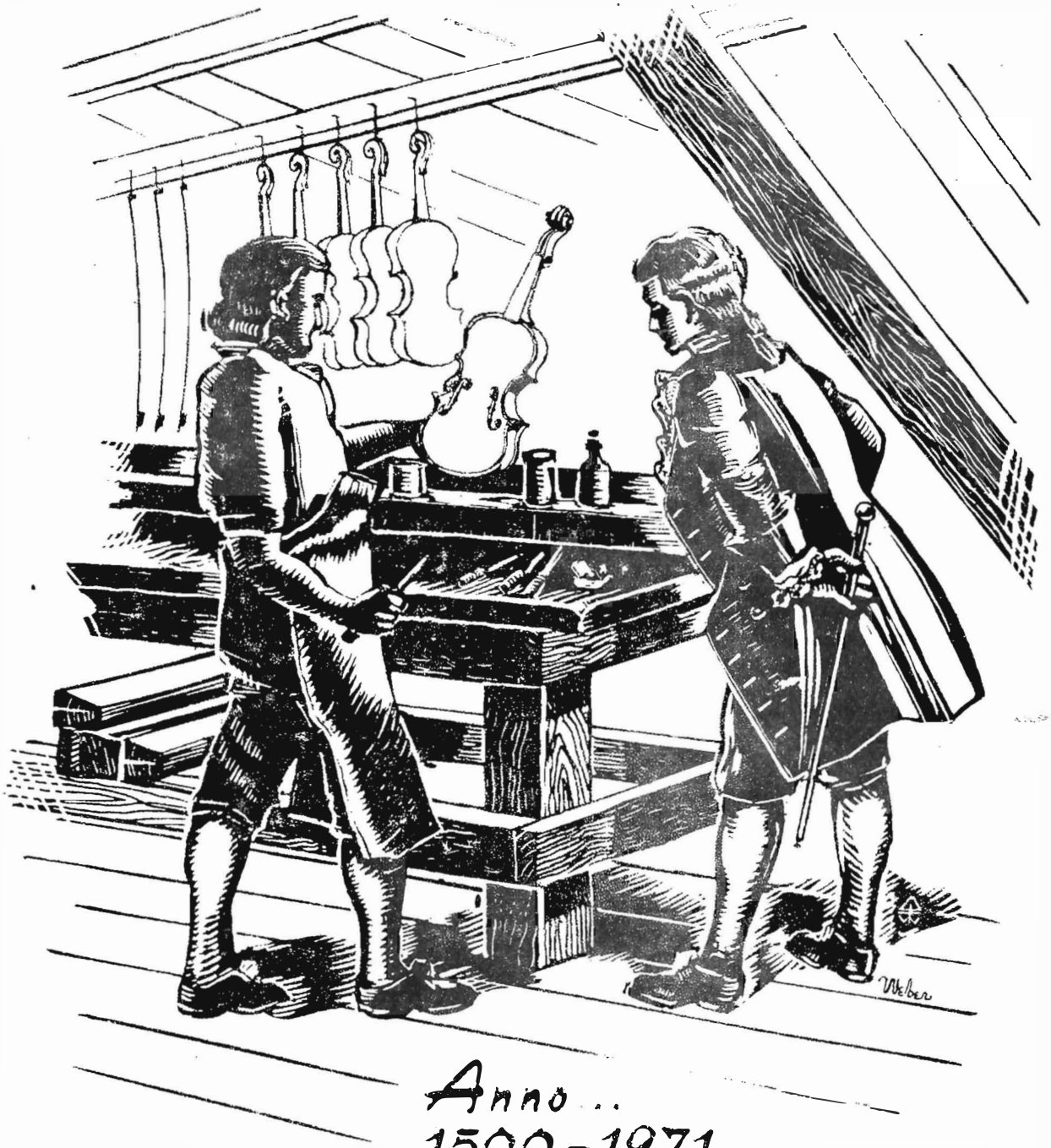
International Violin and Guitar Makers Journal



Anno ..
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Issued As An Educational Feature To Encourage And Develop The Art Of String Instrument Making

OCTOBER

Issue

GUIDE FOR MEMBERS AND AUTHORS

SCOPE. The "International Violin and Guitar Makers Journal" is dedicated to the advancement of the practice and knowledge of string instrument making, playing and other related arts and sciences. Its pages are open to all who wish to report on: studies dealing with instrument making, finishing and repair, the design of apparatus and tools useful to the maker, repairman and musician; and papers concerned with the history and philosophy of craftsmanship.

GENERAL. Papers intended for publication and books and records for review should be submitted to the Editor, Bill Reid, 560 S. 3rd STREET LOUISVILLE KY 40202 Papers not accepted for publication will be returned to the author. Each author receives a one month extension of membership for each issue in which his or her work appears. All material in the Journal is copyright and may only be published elsewhere with written permission of the author or the editor. The Journal neither assumes responsibility for material in transit nor guarantees publication of unsolicited material. Whenever possible, manuscripts should be typed and drawings and photographs prepared on separate sheets, but form is not a requirement for recognition and publication. Spelling and punctuation on technical articles will be according to the rules of Webster, the applicable technical dictionaries and the discretion of the Editor.

ADVERTISING. All advertising in the Journal is run in a separate section starting with "String Swappers" in each issue. The rates are as follows:

Full Page	$100.00 per year
Half Page	$ 50.00 per year
Quarter Page	$ 25.00 per year
Eighth Page	$ 12.50 per year

All advertising is based on camera ready copy and extra charges will be made for extensive typesetting and corrections. Free advertising is available to non-profit organizations wishing to announce concerts, contests and charitable sales that would be of general interest or benefit to our membership. Conventions held by any Stringed Instrument Association will be advertised in special issues and membership or attendance forms enclosed at no charge to the cooperating association in exchange for a copy of the organization's membership list for the purpose of soliciting non-subscribers to join the International Association.

FOR FURTHER INFORMATION WRITE THE EDITOR

MEMBERSHIP AND SUBSCRIPTIONS. Membership in the International Violin and Guitar Makers Association is open to all and includes receiving the monthly Journal. World wide membership dues are as follows:

One Year - 12 issues	$ 4.00
BY AIRMAIL	*$ 10.00*
Five Years - 60 issues - - -	$ 15.00
BY AIRMAIL	*$ 33.00*
Life Membership - - - - - - -	$100.00

Membership starts the month your check is received. Back issues are available at 50¢ each, postpaid from the Editor. The newstand price is 50¢ per copy.

ALL MATERIAL MUST BE IN BY THE TENTH OF THE MONTH PRECEEDING MONTH OF ISSUE.

ATTENTION!

15 Mar 72

this is a continuation of our 88-page Summer 1971 Journal. page 45 of Fritz Reuter's Artical is on the next page.

Please pay particular attention to the new "Guide for Members and Authors" on the reverse of this sheet. It reflects the new advertising policy for 1972.

Again, your Better Late than never friend,

'bill 'reid

P.S. it took 6 days to assymbble and staple that other half of this Monster!!!

an additional profit for the seller. Ask for the discount or shop for it. When charging sales prices on old violins and bows, even a discount given to a buyer may have no meaning since many violin merchants have two "floors" of discounts, the upper "floor" going to the buyer and the lower "floor" to the pusher. Only sales method number 2 gives a relative assurance of value received.

B. Method #2. -- Let the Seller Beware.

a. This method is only used by some professional violin makers dealing in violins and bows. Only a small number of all violins sold today are sold by this method. The main feature of method number 2 is an assurance to the buyer, through a written guarantee, what cash value and/or trade-in value the instrument has to the seller.

1. The method

The seller is mostly a violin maker and dealer who, for sound personal and/or professional reasons will not conform to the standards of selling violins and services used in method Number 1.

2. Advertising for these makers and dealers is limited to the violin teachers who are not employed by various sellers of instruments who give them kickbacks. Since the seller in this case uses no pushers as method number 1, satisfied amateur and professional violin players by "word of mouth" give the finest advertisements.

3. The buyer in this case is a quality and price conscious teacher, student, amateur and professional musician who trusts the judgment of a professional violin maker and dealer as to the quality of his products and services. Buyers who are interested in knowing what definite value their purchased violin or bow has to the seller.

4. The Warranty

These written warrantees vary in their contents. A sample warranty may list the following details:

a. A five-year duration of the warranty.

b. The name or description of the instrument or bow warranted and the registration number of the seller, visible on the instrument or bow.

c. The price paid for the instrument or bow.

d. The classification of the instrument or bow, described under number 2 above; for example, trade-name, master-shop, master.

e. Trade-in value. The minimum amount the seller would allow the buyer, if the instrument or bow is given in trade against a higher priced one. For example:

Trade-name instruments and bows:
66 2/3% of the original price paid.

Master-shop instruments and bows:
75% of the original price paid.

Master instruments and bows:
100% of the original price paid.

f. Cash value: the minimum amount the seller would pay the buyer if the instrument or bow, for any reason, is returned to the seller. Master instruments and bows should bring 75% of the amount originally paid by the buyer.

The warranty may also state that no third party receives any remuneration or commission or finder's fee from the sale. Availability, on a preferential basis, of repair service, etc.

A written warranty is not to be confused with a certificate of authenticity.

Advice to the buyer:

These establishments may sell National brand-name type instruments, bows, strings and accessories below the catalog prices to all buyers, giving him, not a third party, the benefit of the "professional discount."

Especially old or new master instruments and bows should be bought under this method, because the legal obligation of the seller establishes with guarantee or warranty the definite amount in cash and/or trade-in if returned by the buyer.

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Most professional violin makers and repairmen throughout the world learned their skills in Europe. The training or schooling varies with every country, region and guild to some extent. In general, the following degrees of basic professional competence are attainable:

Bachelor's Degree in Violin Making

To quality for the examination of journeyman by the guild, the apprentice or student has to have three to four years of supervised instruction by a qualified master in violin making, repairing, theory and history of violin making, as well as general business knowledge. Masters of the guild will test the apprentice by standards set by the guild. Upon passing, he is awarded the bachelor's degree. The holder of the degree is entitled officially to call himself a violin maker and is accepted as a member of the build.

Master's Degree in Violin Making

To qualify to the examination of Master by the guild, the journeyman has to have at least five years of uninterrupted employment as a violin maker, mostly working and studying in shops of various masters. Subjects tested are the same as to qualify for journeyman, except the standards set by the guild regarding skill and knowledge are much higher. Upon passing, he is awarded the master's degree. Privileges: The holder of the degree is now entitled to call himself Master Violin Maker. As a Master of the guild he is qualified to teach the craft and accept apprentices. Depending upon his position with the guild, he may be asked, with other Masters, to test and give degrees, according to the standards set by the violin makers guild.

National Associations of Violin and Bow Makers within Europe

Most European countries have national associations of violin makers. To qualify as a member, the applicant has to be a Master, in good standing with his local guild, or because of some specific achievement of the applicant, membership is possible by acclamation.

Functions of these associations are to hold regular meetings of the membership, to inform the Masters of new theories or practices with the profession, the setting and policing of ethical professional and business standards within the profession on a national level.

Since most members of the association are, besides Master violin makers, dealers in old and new violins and bows, their certification of authenticity of old violins are bows are

the most authoritative ones on a national level. Most members are court appointed experts, testifying as specialists on legal cases pertaining to violins and bows.

ENTENTE INTERNATIONAL DES MAITRES LUTHIERS ET ARCHETIERS D'ART

This international society of master violin and bow makers functions basically the same as national associations except on an international level. Most members of this association are, besides master violin makers, also, to a large extent, the most authoritative members of national associations. The functions are similar to those of the national association except membership is more selective. Certificates of authenticity by members of this association are internationally the most authoritative.

After reading the previous chapters, a buyer may want to give up buying a violin at all. Basically, however, the less one knows about any item he wants to buy, the greater should be the authoritative knowledge and competence of the SELLER. All the more so when a purchase may be a considerable educational and/or financial investment.

Therefore, as a rule, the following direct sources are listed from the most preferable to the least preferable, considering all aspects which are reported in the previous chapters.

... Professional and Business ... SELLERS

An individual, professional violin maker and dealer is the most reliable direct source to purchase a violin or bow and repair service. His greatest assets are his professional name and standing within the profession and his comprehensive practical and technical knowledge about violins. Being a craftsman and artist first gives the buyer the greatest assurance of sound professional advice, competence and service.

First Choice: Class "AAA" Establishment.

A professional violin maker and dealer who is a member of the International Society of Master Violin and Bow Makers.

Second Choice: Class "AA" Establishment

A professional violin maker and dealer who is a member of a National Association of Master Violin and Bow Makers.

Third Choice: Class "A" Establishment.

A professional violin maker and dealer who is a member of a Professional Guild of Violin and Bow Makers, having a master's or bachelor's degree in violin making.

E. Business Oriented SELLERS

These SELLERS, from the business specializing in stringed instruments to the music house or the music store, are exclusively oriented to selling merchandise. Not being professional violin makers themselves, these SELLERS have no professional standing. To maintain a repair shop for service, they have to employ violin makers. In obtaining a violin maker for their shop,

the SELLERS' reputation and sales potential rise in proportion to the real or advertised competence of the violin maker employed. Since unethical repair and sales practices, as a rule, are most prevalent with these SELLERS, employed violin makers are barred from membership in National and International Associations of Master Violin and Bow Makers.

Fourth Choice: Chass "BBB" Establishment.

A businessman, employing a member of a professional Guild of Violin and Bow Makers, having a master's degree in violin making or of equivalent competence.

Fifth Choice: Class "BB" Establishment.

A businessman, employing a member of a professional Guild of Violin and Bow Makers, having a bachelor's degree in violin making or of equivalent competence.

Sixth Choice: Class "B" Establishment

A businessman, employing an amateur violin maker.

C. Private Individual SELLERS

These SELLERS include violin teachers and violin players, musicians and any other private party wanting to sell a violin or bow. Unless the BUYER knows as much or more about violins and bows than the SELLER, these sources should rarely be considered for the following reasons:

1. NO assurance of the relative value the violin or bow has;

2. No assurance of competent repair service for the violin or bow;

3. Read Chapters: Selling Methods; Certificates; Appraisals.

D. Chart and Box Score

These are recommendations from where to buy a particular type or grade of violin or bow. Also the appropriate services and documents for its value.

Box Score: 1 = 1st Choice, 2 = 2nd Choice, 3 = 3rd Choice, X = not recommended.

Instruments and Bows TYPE *	Services TYPE**	Class of Establishment or type of SELLER*** AAA	AA	A	BBB	BB	B	PRIVATE
HIGHEST PRICED OLD MASTER VIOLINS AND BOWS	CERTIFICATES	1	2	3	x	x	x	x
	ETHICAL REPAIRS	1	2	3	x	x	x	x
	COMPETENT REPAIRS	1	2	3	x	x	x	x
	APPRAISALS	1	2	3	x	x	x	x
	TO BUY	1	2	3	x	x	x	x
MEDIUM PRICED OLD MASTER VIOLINS AND BOWS	CERTIFICATES	1	1	2	x	x	x	x
	ETHICAL REPAIRS	1	1	2	x	x	x	x
	COMPETENT REPAIRS	1	1	2	x	x	x	x
	APPRAISALS	1	1	2	x	x	x	x
	TO BUY	1	1	2	x	x	x	x
LOW PRICED NEW & OLD MASTER VIOLINS AND BOWS	CERTIFICATES	1	1	1	x	x	x	x
	ETHICAL REPAIRS	1	1	1	x	x	x	x
	COMPETENT REPAIRS	1	1	1	2	x	x	x
	APPRAISALS	1	1	1	2	x	x	x
	TO BUY	1	1	1	2	x	x	x
NEW & OLD MASTERSHOP VIOLINS AND BOWS	COMPETENT REPAIRS	1	1	1	1	2	3	x
	APPRAISALS	1	1	1	1	2	3	x
	TO BUY	1	1	1	1	2	3	x
NEW & OLD TRADE NAME VIOLINS & BOWS	COMPETENT REPAIRS	1	1	1	1	1	2	x
	TO BUY	1	1	1	1	1	2	3

* See Chapter "Types of Manufacturing, Grades of Quality, etc."
** See Chapter on "Certificate." "Repairs," "Appraisals."
*** See Chapter on "Where to buy a Violin, Sources."

John H. Shal

Violin Maker And Repairer

316 Vine Street South Connellsville, Pa.

Phone: 628-5388 15425

September 20, 1971

Bill Reid
Louisville, Ky.

Dear friend Bill,

Due to the stage of my early retirement, I will be unable to make it to the Annual Competitions this year, but since I will be retired after this year, I should be in good shape from there on.

Bill, one of the main reasons I am writing you directly is because I am in the process of making a guitar, one each, for my son and daughter. I could not find the address of any of our members that make guitars to get the item described below. Since I have all the necessary material to make these two instruments, I do need to get the proper steel re-enforcement for the necks. I cannot possibly make a guitar neck hold it's intended straight position for long without putting in this steel rod. The ones I saw in a Martin guitar are shaped like a T, or, possible welded in this manner. I wish you would send me the address of one of our members that you think can help me out in this matter, or, write him direct telling him about my kind request. Whatever way is most convenient for you would certainly suit me.

Knowing you will have a "barrel" of fun at the Convention, I only regret I cannot make it this year.

Thanking you in advance, I remain,

A member,

John H. Shal

Octagonal, Round or Oval Stick?

by G. Sanborn

In Violin and Guitar Makers Journal October issue 1970 I have found a few lines by Mr. Steven Hawkins about my article, "Acoustics of the Bow." I was happy to note that someone had read the article and found same worthy of some praise. In conformity to Mr. Hawkins I am also of the opinion that far too little has been written about bows, the implement sometimes called "the lung of the violinist." The reason can hardly be more than one: there is apparently so very little to write about. But I consider a still greater shame that so very few violin makers are making bows.

Most people have a delicate music ear and love the pure, intensive and beautiful violin tone. But our ears can be accustomed to accept a lesser degree of beauty if there is nothing handy to compare with. A bow correctly made produces a better tone in the instrument. This is a comprehension that skilled musicians have arrived at and which justifies the usual chase after fine bows and the very high prices paid for same.

My greatest interest since many years are the acoustical problems involved in instruments and bows. The bow-instrument music is not helped along by beautiful instruments only. They also have to be well-sounding! The bow also has an acoustical function; otherwise all bows with the same hairing should produce the same quality of tone.

But it is definitely not so! The stick has a decided influence on the tone produced, on account of the fact that it participates in the vibrations and in that way constitutes a smaller oscillating circuit which affects a bigger one. If the stick is purely tuned in harmony with the tone of the body of the instrument, resonance will be the consequence, which is the best thing possible in this connection.

The first qualification is consequently to get the resonance of the stick to coincide with that one of the violin, which is not as difficult as it may sound. If a bow is made to the pattern of the old bows with a total weight of 56-57 grams, the normal pitch will be around C, or somewhat lower. If the hair is tightened a bit more this pitch will raise a little. The mass of the hair also contributes to the pitch. If you alternately tap the stick and the top of the bridge you can hear if these two tones coincide. (The air-tone must be correctly adjusted.) The natural frequency of stick and instrument must of course be very close to each other.

The next qualification is that the stick is purely tuned in the full length from the position of the frog to the point. If the ear has to determine the tuning of the stick, it will be tapering in accordance with the classical bows. There lies consequently part of the secret of the bow but not everything. To sort things out, I must go a long way round.

In the method of "Harmonic tuning" is also great care taken of the tuning of the soundpost. All details of the fiddle have their importance. This simple little part, probably the most misused little piece of wood of all times, adheres to acoustical laws as everything else. To restrict myself to the tuning of same -- it's mass can be adjusted to be in resonance with the body of the instrument. This is done when the length has been determined. The end of the post is placed against one of the lower flanks of the violin, for instance the right one, not too close to the bridge where the air-tone may mislead us if same is not properly adjusted. By making the post thinner the frequency will be lowered, which can be observed by tapping the upper end with a fingernail.

Alternately, lightly bumping the post against the belly. It is also important that the post is of the same shape at both ends. Always test the tone with effective muffling, the post kept by the finger and resting against the palm of the hand. This is important. When in position, the post is muffled by the two places.

If the post is now put in position, the spot right over the post will be in a better resonance to the plates than before the tuning of the post. The tone and the pizzicato will also be better in the G-string in a violin harmonically tuned. But if you observe the tuning of the plates there is a raise in the pitch below the place of the post as well as above on the other side of the foot of the bridge. This, generally called the soundpost pitch-raise, does not emanate from the tension involved, but from something else as detailed below. Anyhow, such a raise in pitch right under the right hand bridge-foot will cause a severe distortion with a badly sounding G-string as a result.

The cause of this is rather simple. A piece of wood, in this case pine, does not permit the transversal vibrations as easy at right angles to the annual rings as in their longitudinal direction. If the post is exactly round, maybe turned, and you keep it to the ear, tapping one edge while turning the post slowly round, you can hear that the pitch is rising and falling. The tone at right angles to the annuals is the highest one and in the other direction the lowest one. If you want an acoustically round post, it must be mechanically oval. The oval-shape shall be very small but it must be there. You must, of course, take proper notice hereto when adjusting the post to the plates.

If properly done, with a good violin, a proper bridge and a correct soundpost, the tone of the whole instrument will improve, but the greatest improvement will be noticed on the G-string, with its difficult pizzicatos. This is very obvious in an harmonically tuned vi

PART II

This long-winded talk about the soundpost was unfortunately necessary to show the similarity to the bow stick. This is also round, sometimes nearly round = octagonal. The octagonal stick is a beauty but as a tone producer mech inferior to the round one. But the round one is not quite ideal either. If a stick is perfectly made, perhaps turned, you will find that, if same is turned round, muffled by the hand and easily tapped with your nail, the pitch will rise and fall in different positions of the stick. It is highest at the sides, if the point and frog are held downwards. Here we have exactly the same problem as with the soundpost. To be acoustically round the stick must be mechanically oval in order to produce the best possible resonance and purity of tone. The ovality must be determined by listening as with the soundpost. A precision job to be carefully carried out. If you have made a bow-scraper with a 5mm groove and a suitable blade at right angle to the groove, it will be quite easy. Even a grinding block with carborundum paper glued into its groove will do.

Tourte, who certainly knew everything about bows, firstly made mostly round sticks but later on he turned over to making octagonal sticks usually, most probably due to the orders from his customers.

Is it then possible that the octagonal ones can be much inferior? That such sticks can be good too, is beyond doubt. But the secret is probably that the octagonal stick cannot be strictly octagonal in the strict geometrical sense, but oval-octagonal, or slightly thinner at the sides. so done the octagonal stick should be approaching the acoustical ideal with better resonance than the mechanically octagonal bow.

I have three bows with those qualifications: one H. R. Pfretzschner; one August Rau and one O. Glasel a Paris (cello). All are very good bows and the Glasel bow has tortoise-shell frog with gold mountings, a very fine job with an extremely well made stick.

It is believed that Tourte split his bow wood. This can be so as we know that, for instance, August Rau whose original bows are among the best known to us, was very careful in selecting his wood. He only used the best possible wood, which he split into suitable blanks. He was really a connoisseur of the French school (with Tourte). The sawing technique was not so advanced as in our days. Trials in splitting pernambucco show that this technique is very hard when the wood is not straight-grained. That a splitted stick is superior to a sawn one can not be denied. When a bow-blank is sawn out, you can very offen notice how the stick is bending when the inner tensions cease. But we have unfortunately no other choice than to saw up the material, taking into account today's very high prices on bow wood.

The ovalty of the stick can very easily be determined. Frog on, the stick is kept close to the ear and you tap the upper side gently with a fingernail. The stick is turned a quarter-turn and you listen again. If these two tones are not alike, the stick has not been tuned in respect of the ovalty. It can, however, still be tuned lengthwise.

You have to take the ovalty into consideration when you start finishing the stick. You cannot wait until the stick has the right dimensions and then make it oval. In such a case the stick will be too thin, its pitch will be too low and the stick not sturdy enough. Very often round sticks will thus be too thin and far too weak. This is most probably due to the fact that the work starts out by making the thicker end octagonal to fit the frog. Then the rest of the stick is made round setting out from the octagonal inside diameter. The body will then be too small and the fault will follow the stick to the very point. The stick should instead initially be shaped round (9mm) and can now easily be drilled for the frog-screw in a lathe with a three-jaw chuck, whereupon the octagon can be shaped. In this case the round part of the stick has a bigger diameter and can easily be definitely shaped and turned. The change from octagonal to round shape is covered by the silver spinning and cannot be noticed.

Tourte did not varnish his bows. As the body of the varnish will change the pitch, his carefulness in this respect did certainly concern the acoustical stability. Bow makers nowadays do not take this into consideration but are generally concerned about a glassy and selling product. Neither H.R. Pfretzschner nor A. Rau varnished their bows.

Among the oils used, linseed oil has a long, very long oxidation period. For this reason we are avoiding it in connection with violins, but it can, as an exception, be used when the stick is weak

and needs greater elasticity. The able bow-maker, Eric Boons, Stockholm, had a bow with too small a tension. He rubbed it with linseed oil and a long time thereafter he discovered that the bow had gained elasticity. That the pitch is changed by this procedure is impossible to avoid, but this can be adjusted and the final adjustment will be invisible.

If the stick is properly dimensioned, it is far better to make it glossy with the aid of a polishing wheel and a suitable polishing agent. Tourte and his contemporaries most probably rubbed their sticks by hand. We have better tools, but we have to learn the art of making better bows, something Tourte knew to perfection, contrary to us. The ideal bow has a pure, ringing tone, wherever you hit the stick. This is typical for good bows, sometimes emanating from sheer luck when making them. It is, however, now possible to obtain these qualities as a rule in connection with all bows, provided the ear is called in to assist in shaping them.

(Translation in English :
Ame Ekwall)

G. Sanborn
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S. 43300 Partille 2 Sweden

SOME MORE ABOUT BRIDGES

At the convention this year, several people asked me to write more on the subject of bridges. Since the first of the year, I have received no less than five letters asking for the same thing. So, this will be something of a general discussion on them and not exactly a how to do it type of article. To go into all the whys and wherefores of the subject would be to get too involved in it, so there will be some places where you will have to look and see and then draw your own conclusions. It will help if you have a fitted up bridge at hand so you can study it as well as the drawing with this article. What I hope to do is to again emphasize the importance of the bridge to the tone of the instrument. It is my opinion that more tone is lost in fitting the bridge than in any other element of the violin. Yet, it is a continuing failure of makers and repairmen that they do not learn to fit it up properly.

In looking at the drawing of the bridge, you will see that lines 1 and 2 form the outer boundries and if these two lines are projected to intersect and radius R1 is laid in, you then have a segment of a circle. From the point of intersection, you can project lines that bring out some interesting facts in regards to bridge design and then it becomes apparent that there is a method and reason for the way a bridge is made.

(continued on page 80)

A. E. OVERHOLTZER
618 Orient Street · Phone 916 343-5977
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Article to be printed in Journal

In reading the Journal I find several questions asked through the months with no one attempting to give an answer. I think the Journal would be more interesting and certainly more educational if the membership would at least try to answer the questions asked. Some time ago a young lad asked how to make a Violin Scroll. I never did read where anyone attempted to give him any answers. I am sure that it would have been interesting to have read the different ways that the members make the Scrolls.I am here now going to try answering Loy R. Smith questions. Smith says in his article that he is dreading to put in the purfling and binding around the guitar edges. I look forward with pleasure when I make my guitars to the time when I can put in the purfling and binding. This part of construction is like many other parts of the guitar, all in knowing how to do it. There are at least three ways to make a guitar. There is the right way, the wrong way, and then there is a way that I do it. I use a Router to cut the channel around the guitar edges for the purfling and binding. There is nothing wrong with a home made guide as Mr Smith says.However, the guide must be adjustable so that you can make light cuts not more than one sixteenth of an inch at a pass. The Router must also be guided so that the cutter cuts in towards the guitar at the first pass and then run the Router back in the opposite direction. I make my channel ¼" wide and 3/32" facing top and back.Then I glue in the three line purfling which is 1/16" face and 3/32" deep,and next to this purfling I glue two strips of rosewood 1/32" thick and 3/16" wide. This, you can see, takes a channel that is 3/32"deep for the purfling and 3/16" deep for the rosewood strips. I then glue in the purfling and the two rosewood strips and after the glue has set I rout a groove that is 1/16" deep and ¼" wide facing the sides. Next, I glue in the three line purfling and a 1/16" thick by 3/16" wide rosewood. There are a total of five strips of wood around each edge of the guitar.(counting the three line purfling as one piece) After the glue has set I rout a quarter inch radius around each corner of the guitar. I have never seen any other guitar finished like this. You can plainly see what I mean when I say"my way".

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Now, Mr Smith asked about the thickness of lumber used. For the most part I agree with Mr Wallo, for you must remember that there is going to be finish sanding on all sides of the wood, and this will make all the wood thinner than what is written in Mr Smith's article. The back struts and top under struts as given in his article are thicker than I use. The fan bracing as he gives, is good. Here is the sizes of the struts that I use. On the top they are ¼" thick and 5/8" high, with an arch cut in struts similar to Mr Robert Bouchet, a Frenchman. The back struts on my guitars on the lower bout is 5/16" thick and 3/4" high in center of strut, tapering down to 3/16" high at sides. The middle bout strut is ¼" thick and ½" high in center. The upper bout strut is ¼" thick and 3/8" high in center. All struts are the same heights at the ends. I split all of my struts and fan bracings so the grain is straight in each piece. All struts and fan bracings are split from fine grain spruce.

A.E.Overholtzer

A. E. Overholtzer

6905 Cunningham Way
Sacramento, California 95828
March 17, 1971

Mr. Bill Reid, editor
International Violin & Guitar Makers Journal
906 E. Chestnut
Jeffersonville, Indiana 47130

Dear Mr. Reid:

Enclosed is a drawing and explanation of the router base I constructed for use in cutting the purfling shoulders on a classic guitar recently completed by my wife. We were using Sloane's book Classic Guitar Construction and following his method of oonstructing the banding and purfling as one unit.

I read the letter from Loy R. Smith in the January issue of the Journal and felt that this method might answer one of his questions and that you might be interested in printing it in the Journal.

As we are not yet subscribers to the Journal, we would appreciate a complimentary copy if you should decide to publish this artiole.

Sincerely

Brian Johnson

the drawing is on page 6 —

P. O. Box 61,
Phalaborwa, N-E Transvaal,
Republic of South Africa,
May 13, 1971

Mr. Bill Reid,
International Violin & Guitar Makers Journal,
906 East Chestnut,
Jeffersonville, Indiana 47130,
United States of America.

Dear Mr. Reid:

Many thanks for the specimen copies of your very interesting and enjoyable Journal which you so kindly posted to me. I have much pleasure in attaching hereto a Bank Draft to the value of $4.00.

So far as I am aware there are only two active violin makers in this country, and give their names and addresses in case you may care to post each one a specimen of the Journal - perhaps they will subscribe and so swell the ranks:

(a) Mr. K.J. Grabner,
Violin Maker, Repairer & Valuator,
25 Barbican Building,
89 P
Johannesburg, South Africa.

(b) Mr. P. Reddy,
Violin Maker and Repairer,
2 Saville Street,
Durban, Natal, South Africa.

Although I am not a violin maker - I wish I were! - I find the contents of your journal of exceptional interest and am already looking forward to the arrival of the next issue.

With kindest regards to all your members and also to yourself.

Yours very truly,

Maurice Kaye

Maurice Kaye

*Attachment

ROGER.

They say no news is better than bad news and that if you can't say something good about some one, don't say anything. That should be enough to tell me to not write anything for the Journal for this month, but then, there is no fool like an April Fool, so I'll scrape the bottom of the barrel and tell about the bad news we had.

I was under the weather and Hattie took me to see the doctor. He pushed and pulled and punched and kept saying "Hmmmm". Finally closed his eyes and leaned back and I could see that the wheels in his head were going around like a computer. Finally sat up and looked solemn and so I said, "Well Dr., give it to us straight; what's the verdict?" and he turned to Hattie and said, "Well, OK, but you have my sympathy; he is going to live."

But then health is the thing people drink to just before they collapse. I'll drink to that. (Clink) Of course the average man feels better after a few winks, especially if she winks back.

Here I was, starting to feel a lot of pride in our astronauts and their Apollo 14 mission and then one of them played golf on the moon. I was ashamed when my hero suddenly turned into a poor sport. He never even yelled "Fore" before he swung, and then he got mad and threw his club away.

You know, in Africa some of the natives practice a strange custom of beating the ground with clubs and uttering bloodcurdling yells. Anthropologists call this a form of primitive expression. In America we call it golf.

I was just rereading the January Journal and came across the article by Bill Huisman, of Parkersville, Iowa. He has my full sympathy when he plays that "Jacobus Stainer in Absam Probe Oenikonium 1665". I have looked at the insides of a wheelbarrow load of those and found that usually the top was hacked out with a wide gouge and they thoughtfully left a little ridge in the left side in lieu of a bass bar. Bill was getting along fine until this Ralph Hedges came along and told him to put rosin on his bow. If I happen over in Iowa I will accept his invitation to stop in and play a tune while he seconds on his guitar or Dulcimer, if he will promise to leave the Jacobus Stainer under the bed. Don't see how he could bear to part with all of his coon dogs. I let all mine go but one but I'll never give up old Spoketite.

I have a letter from Bill Reid and he says he will come up with an article, in detail, about a drying cabinet. I think that is going to be a worthwhile article, and Bill writes down to earth so you can understand what he says. He just tries to be Bill Reid and don't feel nearly as important as John Cameron Sweazy.

Bill is just a young fellow as compared to Harry Wake and me. Harry and I are so old that we can remember when a skirt half way to the knee meant half way from the ankle. (Not that we ever noticed.)

A lot of us old "Squares" have been sort of opposed to the long hair and careless attire but I am coming around to where I can at least see merit in the moustache. It enables us to tell which is the boy.

I hear from Bill Fulton that he has made a couple of new fiddles that will give us a lot of trouble at the next contest. And he says he has started three more. So we all better sharpen our knives and chisels a little.

But I am worried a little about who will do the judging this fall. If we can get the same ones again we will be alright but I read the other day about an Art Exhibit back East, where the paintings were judged and the judges didn't know who the artists were. Turned out that the winner was a TV Chimp.

I have seen things like that happen at a fiddling contest, too. I hope it never happens at one of our contests at Globe.

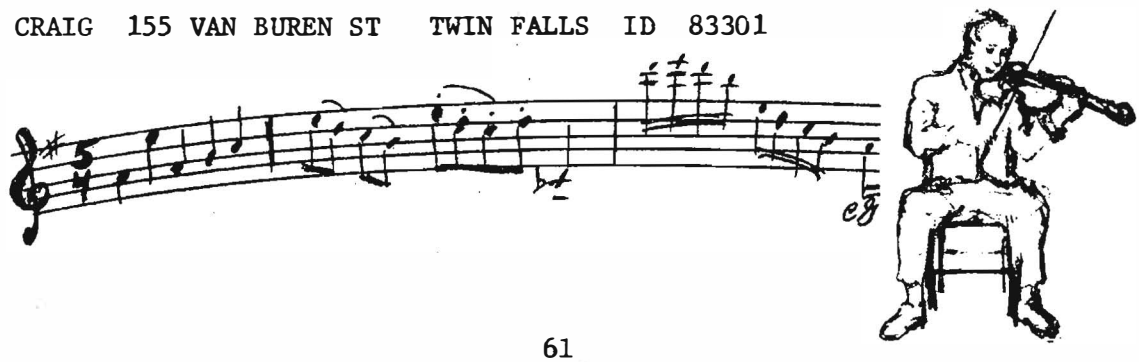
I think one great trouble with a lot of us as fiddle makers, is that we will figure out an idea about violins and latch onto it as a fact, and then we will never change. But a lot of "Facts" have been proven false. Look; if Columbus hadn't come over here after a load of fiddle wood in 1492, we might still be "Knowing" that the world is flat. There was a "Fact" that hung on for a long time. So don't be so persistant in making the same old mistakes over and over again. It has been said that no man is really contented until he stops being a Heller and starts being a "What-the-Heller."

I'm really happy about the shake-up and reorganization in the Post Office Department. Now you can be sure that if you post a letter before noon, it will be delivered the next morning---give or take a few weeks.

I noticed in the January Journal where Bill Reid says he wishes someone would write in and tell what is the proper heighth of a summer bridge and a winter bridge. Also the weight of them. I wrote to Ben Harrison about that, since he is quite an authority on bridges, and he tells me it is exactly like "How long is a piece of string?" Just twice as long as from one end to the middle. Or how far can a dog run a rabbit into the woods? He says, "Just half way; after that he would be running him out." So there it is, and don't you try to contradict Ben: he is a black belt Judo guy.

And now I will end this with some famous quotes. "Ask not what the Journal can do for you, but what you can do for the Journal." ---- "Let us reason together."-----"And that's the way it is."----"Ten Four"---"Roger"--------"Over and out."

FRED CRAIG 155 VAN BUREN ST TWIN FALLS ID 83301



VALUES IN VIOLINS

To obtain the utmost in purity of tone and volume that a violin maker has incorporated in an instrument, there is one important element completely beyond his control, once it has left the workshop, and that is the type of rosin used on the bow by the musician.

There are many types of bow rosin available in the market. It is understandable that a solf or somewhat sticky type will have a different action or pull on the strings than one that is many degrees harder; the former giving a slurring effect, and the latter a crisp note. It is similar, in a sense, to the tuning of a piano string. As I recall, Vladimir Horowitz, the great Russian pianist, would insist on his concert piano being tuned to 444 instead of the more usual 440--- a difference undectable to most listeners, but less than perfect to his professional ear, and producing a razor-sharp, hard resonance, almost like the shattering of glass.

Basically, rosin or colophony, is the resinous constituent of the oleo-resin exuded by various species of pines, known in commerce as crude turpentine. Rosin varies in color, according to the age of the tree from which the turpentine was drawn, and the amount of heat applied in its distillation, from an opaque almost pitchy black substance, thru grades of brown and yellow, to an almost perfectly transparent colorless glassy mass. The commercial grades are numerous, ranging by letters from A, the darkest, to N, extra pale --- superior to which are W, window glass, and WW, water white. The latter having about three times the value of the common qualities.

In choosing a rosin to suit both the musician and the fiddle, some thought should be given to its purity. Some less-refined rosins contain oxydized acids, that, falling off the bow in the form of dust, will soon pit the varnish in the vicinity of the bridge, and cause damage that could so easily be avoided by using a better grade.

Attention to details is the only way to achieve perfection.

BOB VAIL 321 S 5th St. Louisville, Ky. 40202

AREA CODE 703
TELEPHONE [redacted]

CHAS. A. BOSHER
1109 E. DUPWOOD CRESCENT
RICHMOND, VIRGINIA 23229
PHONE (703) 285-0784

Chas. A. Bosher [redacted] • RICHMOND, VIRGINIA, [redacted]

Feb 25, 1971

Mr. Bill Reid
906 E. Chestnut
Jeffersonville, Indiana

Dear Bill:

With all the hot air flowing (inside the buildings these Wintery days and nights) it does not matter whether you are an heating engineer, violin maker, or both, but you need to think about the humidity. I now have a humidifier in connection with my heating system, and a "dampit" in my violin, so I feel safe. For those who haven't tried a "dampit," I believe it would be worth looking into. Of course, one should be most particular in putting this in through the "f" hole, and also removing it, which any violin (cello etc) maker would know, and warn others.

Sincerely,
Charles

P.S.
Your card of Feb 23rd received and all material has arrived. Many thanks to you for looking after this.

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BOW MAKING

General Condensation

No. 1 Wood "Guilandia echinata (bow stick), "Cercocarpus ledifolius" (frog).
No. 2 Sawing into boards for bow sticks.
No. 3 Sawing into the rough bow sticks, show diagram, template.
No. 4 Making rough octagon stick.
No. 5 Bending and tempering the rough octagon to a curve.
No. 6 Graduation of the rough octagon curved stick.
No. 7 Completing the tip.
No. 8 Put on ivory and fiberface on tip and sand stick.
No. 9 Cut or saw bow stick to proper length.
No. 10 Saw out frog blank.
No. 11 Make up the partially complete frog.
No. 12 Fit frog to stick.
No. 13 Complete the frog and button.
No. 14 Hair the bow.
No. 15 Make all the corrections of the bow stick. (No. 15 the most important part of bow making).
No. 16 Take off hair and polish stick.
No. 17 Put on the winding, silver or whalebone.
No. 18 Rehair.
No. 19 Retest bow.
No. 20 Rosin bow then clean up.

ADDITIONAL

No. 21 Measurements.
No. 22 Feel of the bow and what it is.
No. 23 Oval.
No. 24 The tools, new ones to correct for use, making special ones.
No. 25 Turning out button stock, many sizes, solid.
No. 26 Brazing.
No. 27 Pearl slide and eyes.
No. 28 Hairing Machine.
No. 29 Winding Machine.
No. 30 The curve of the stick.
No. 31 The tension (Write down and keep for record and comparisons.)
No. 32 The weight of the bow, also the individual parts. (Write down and keep for records.)
No. 33 The balance of completed bow and also the stick. (Write down and keep for records.)
No. 34 Explain what Woolhouse meant by straight graduated stick.
No. 35 Vuillaume's scale to take bow measurements.
No. 36 Three-tenths of a millimeter graduation scale.
No. 37 Diagram of parts of bow.
No. 38 Special tool made for certain jobs.
No. 39 Templates.
No. 40 Gauges, stick 0000 to 16, dial Vernier, also marking.
No. 41 Materials for mortise blocks and wedge for ferrule, hair.
No. 42 Cutting files.
No. 43 Planes.
No. 44 Selecting best wood for gold mounted bows.

MEASUREMENTS

(Approximate)

VIOLIN

Length of complete bow stick without button: 731 millimeters
Length of complete bow with button: 746 millimeters

CELLO

Length of cello bow stick without button: 702 millimeters
Length of complete cello bow with button: 717 millimeters

TIP

Length and depth with ivory:

Violin	23.5 mm
Viola	25.5 mm
Cello	27.7 mm
German and French Bass	40.0 mm

Width on top of tip:

Violin	10.7 mm
Viola	11.0 mm
Cello	11.8 mm
German and French Bass	18.0 mm

FROG

Height, top to slide:

Violin	17.5 mm
Viola	19.5 mm
Cello	21.4 mm
French Bass	25.0 mm
German Bass	44.0 mm

Length:

Violin	45.0 mm
Viola	48.1 mm
Cello	51.3 mm
French Bass	64.0 mm
German Bass	79.0 mm

FERRULE

Width:

Violin	13.5 mm
Viola	14.5 mm
Cello	15.5 mm
Fr. Bass	17.0 mm
Ger. Bass	17.0 mm

Length:

Violin	10.0 mm
Viola	10.0 mm
Cello	10.3 mm
Fr. Bass	15.0 mm
Ger. Bass	15.0 mm

Depth:

Violin	6.7 mm
Viola	6.7 mm
Cello	6.9 mm
Fr. Bass	9.5 mm
Ger. Bass	9.5 mm

Thickness of silver:

Top metal .040 inches Round bottom metal .020 inches

Metal Top Back Plate: 7 millimeters
Wood Under Top Back Plate: 6 millimeters
Relief on Pivot: 2 millimeters

BUTTON

Overall length:

Vl, va	14.6 mm
Cello	16.0 mm

Wood showing:

Vl, va	8 mm
Cello	10 mm
Fr. Bass	15 mm

Metal rings (vl, va & cello):

Front ring	4 mm
Back ring	3 mm

BOW STICK

Condensed

No. 1 General remarks on bowmaking.
No. 2 Pernambuco wood; preferred name, "Guilandia echinata."
No. 3 Ordering from Brazil. Fresh cut, etc.
No. 4 Cutting up the log, sawing into boards.
No. 5 Marking the boards with template of stick. Several templates.
No. 6 Sawing the sticks from the outline of template on boards.
No. 7 Seasoning the sticks.
No. 8 Naming parts of the sticks and the frog. Diagrams.
No. 9 Picking out the best sticks to use.
No. 10 Get bench ready.
No. 11 Get tools ready for rough octagon planing.
No. 12 Planing top and back of the stick for the rough taper.
No. 13 Planing sides of stick for the rough taper.
No. 14 Planing the octagons for the rough taper.
No. 15 File part near tip where the plane cannot be used.
No. 16 Bending and tempering the rough octagon stick.
No. 17 Graduating the stick to the sizes wanted. Taking tension.
No. 18 Starting to get tip ready. #7 stick. Tip front curve.
No. 19 Working on tip. #8 stick. Top flat part.
No. 20 Tip end: ridge sawn off. #9 stick.
No. 21 Tip end ridge. Cut sides rough fit for ivory. #10 stick.
No. 22 Tip end: glue ivory and fiber, tying with string. #11 stick.
No. 23 Tip end: take off string. #12 stick.
No. 24 Tip end: rough file outline of tip. #13 stick.
No. 25 Tip end: sand and finish tip. #14 stick.
No. 26 Tip end: drill hole and chisel mortise for tip hair block. #15 stick.
No. 27 Tip end: round the end where tip and back of stick meet. #16 stick.
No. 28 Tip end: cut bevels on the front curve. #17 stick.
No. 29 Cut stick to the proper length. #18 stick.

Additional

No. 30 Fit frog to stick. #19 stick.
No. 31 Put eyelet into frog.
No. 32 Make the mortise in stick for eyelet movement.
No. 33 Drill hole in stick for button screw.
No. 34 Fit button to stick.
No. 35 Trim sides of frog.
No. 36 Make octagon on button.
No. 37 Make the mortise blocks for tip and frog.
No. 38 Put hair in bow.
No. 39 Correct and straighten stick. <u>The most important job</u> of all work.
No. 40 Take off hair and polish stick.
No. 41 Wind silver wire or whalebone on stick.
No. 42 Rehair bow and check for correction.
No. 43 Rosin bow with powdered rosin in a canvas pad.
No. 44 Clean up bow. Recheck and correct if necessary.

STICK SEQUENCE

Condensed

Sticks numbered No. 1 to No. 21 made up for exhibit

No. 1 Stick as it is cut from the board, then plane rough spots.
No. 2 Planed on hair side and back of stick tapered heel to tip.
No. 3 Planed on sides tapered heel to tip.
No. 4 Octagons planed on stick. This is the rough octagon.
No. 5 Rough octagon curved with heat to a template curve.
No. 6 The No. 6 is graduated and numbers below are all graduated.
No. 7 The inside tip curve is made.
No. 8 The tip height and slant are made.
No. 9 The tip end is sawed to shape.
No. 10 The tip end sides are shaped for the ivory and fiber.
No. 11 The ivory tip and fiber are glued. Tied on with string.
No. 12 After drying period string taken off ivory and stick.
No. 13 Ivory on tip and sides of tip filed roughly.
NO. 14 Tip is filed and sanded.
No. 15 Make mortise for block in tip for hair.
No. 16 Round the end where back of stick and tip meet.
No. 17 Make beveled edge on inside tip curve
No. 18 Cut stick to proper length.
No. 19 Fit frog to stick.
No. 20 Make mortise in stick for eyelet movement. Put eyelet in frog.
No. 21 Fit button to the stick.

Additional

No. 22 Make tenon for button on end of stick
No. 23 Chisel sides of frog.
No. 24 File and sandpaper sides of frog.
No. 25 Carve, file, sandpaper and finish pivot and curve to ferrule on frog.
No. 26 Finish metal parts.
No. 27 Stick sanded.
No. 28 Mortise blocks for tip and frog are made.
No. 29 Hair the bow, do not put in wedge at the ferrule.
No. 30 Make the corrections of the stick. Most important job of all.
No. 31 Watch if frog is off. Centered. Check from both ends of stick.
No. 32 Take off hair from tip and save tip block.
No. 33 Polish stick, French polish, oil polish, etc.
No. 34 Put on the winding (silver or whalebone).
No. 35 Finish winding with leather thumb piece and upper leather ring.
No. 36 Rehair and check the correction for straightness.
No. 37 Rosin bow (thorough job) in canvas.
No. 38 Clean up bow. (Do not swish in air because this is the number one cause of broken tips. Like cracking the whip).
No. 39 Recheck the bow and correct if necessary.

MAKING FROG

Condensed

No. 1 Materials for frog blanks. (Wood, ivory, tortise shell.)
No. 2 Saw out for blank.
No. 3 Plane, straighten and true up the sides, ends, top and bottom of the frog blank.
No. 4 Saw out two lines with depth stop, on top side of frog.
No. 5 Chisel out between saw marks for the pearl slide.
No. 6 File with special file the place for the pearl slide to fit.
No. 7 Take out pearl slide and make mortise in frog for hair slot.
No. 8 With steel square mark with knife point the place where the ferrule is to be placed.
No. 9 Chisel out place for the top of ferrule.
No. 10 Mark sides template for pivot.
No. 11 Saw out the part for pivot and save this piece for top back end.
No. 12 Rough out with knife the pivot part under ferrule and fit ferrule.
No. 13 Mark frog back end with pencil compass for back plate.
No. 14 Fit wood from No. 11 to be under silver at top of back end.
No. 15 Glue in fitted piece of wood No. 14.
No. 16 Rough chisel mark for silver back plate.
No. 17 Mark on bottom of frog two lines.
No. 18 Saw on marks No. 17 to the right depth.
No. 19 Chisel out saw marks No. 18.
No. 20 Chisel place for metal bottom slide. Right depth. Measure.
No. 21 Fit metal bottom slide plate.
No. 22 Fit and then pin top metal back plate.
No. 23 Fit and pin metal back plate.
No. 24 Fit the pearl slide to the top metal back plate and ferrule.
No. 25 Take pearl slide out. Put in wood piece for clamping bottom slide plate.
No. 26 Glue bottom metal slide plate. Two days drying.
No. 27 Pin bottom metal plate.
No. 28 File and finish and then make (saw) relief for pivot.
No. 29 Work down top side with sandpaper on pane of glass. Coarse to fine.
No. 30 Follow No. 29 for back of frog.
No. 31 Polish on felt placed on glass. Top of frog.
No. 32 Follow No. 31 to polish back of frog.
No. 33 Check with square and then file to get it so, the bottom metal slide.
No. 34 Fit the frog to the bow stick.
No. 35 With right size drill and proper place, then put eyelet in frog.
No. 36 Mark end of stick with eyelet screw. Use scriber.
No. 37 Make slot in stick for eyelet movement.
No. 38 Drill end for frog button screw.
No. 39 Drill the part past eyelet slot for button screw end.
No. 40 Make tenon end of bow stick to fit mortise of button.
No. 41 Fit and put on frog and button to the bow stick.
No. 42 Chisel sides of frog.
No. 43 With knife and file finish pivot and under ferrule.
No. 44 Sandpaper pivot and under ferrule.
No. 45 Polish the under part of ferrule.
No. 46 Take off ferrule and pearl slide and chisel out place for the hair inside of the frog.
No. 47 Finish and sand outside of the frog.
No. 48 Make octagons on button.
No. 49 Polish button.

HAIRING BOW, HAIR IN FROG FIRST

Condensed

No. 1 Hairing machine: Adjust to right length for size of bow.
No. 2 Get the hair ready. Selection. Horse or nylon.
No. 3 Get right size bundle for particular bow.
No. 4 Tie end of bundle of hair seven times around.
No. 5 Cut off uneven hairs.
No. 6 With lighted match burn end hairs but not string.
No. 7 Put on end burned part liquid alcohol and rosin mixture.
No. 8 Put hair into warm water leaving tied end out of the water.
No. 9 Make blocks for both tip and frog mortises.
No. 10 Tied end of hair wiped off, spread evenly, put into the frog slot.
No. 11 Put the block into frog mortise, hair spread evenly.
No. 12 Comb hair and spread hair in hand evenly to the end.
No. 13 Look where hair goes a little beyond tip mortise.
No. 14 Pick place where hair will be long enough, put on alcohol and rosin.
No. 15 Select spot on hair long enough but not too long for hair tying.
No. 16 Have twine ready to tie and use five times around.
No. 17 Cut off hair above twine evenly.
No. 18 Take match and burn end to string. (Almost).
No. 19 Put drop of alcohol and rosin on end.
No. 20 This is important because if you always do the routine next job it will save you a lot of grief.
***No. 21 Put the ferrule over the end of hair the right way and put it on the frog.
No. 22 Spread the hair in hand. Do not twist.
No. 23 Comb hair right so frog hair won't twist. Important.
No. 24 Put hair in tip mortise and push block into place.
No. 25 Put frog on stick.
No. 26 Tighten hair to see if the frog sets in the right place.
No. 27 Put on pearl slide and put on ferrule.
No. 28 Look at whole length of hair to see if it is straight.
No. 29 From tip with comb on the hair pull down to frog.
No. 30 Do many hairs cross at frog ferrule? Watch this.
No. 31 Hold comb in hair and then in mid-stick, spread out hair.
No. 32 Then with fine comb take back side and spread even, put in comb.
No. 33 Bring fine comb down to the ferrule of the frog.
No. 34 If it looks good pull comb back to middle of stick.
No. 35 Make wedge for hair at ferrule.
No. 36 Put very thinned out glue on wood side of wedge, not hair side.
No. 37 Bring the fine comb down again almost to ferrule.
No. 38 Have sharp scriber and between hairs pull scriber to ferrule.
No. 39 Pull all the way across the hair so there is no crossed hairs.
No. 40 Put in prepared wedge even with ferrule.
No. 41 Take out comb.
No. 42 Let hair dry, stick lying, not standing up on end.
No. 43 Rosin.
No. 44 Clean up bow.

BUTTON

Condensed

No. 1 Button material approximately sawn 13 mm X 13 mm X 16 cm.
No. 2 Turn material down to size, approximately 11 mm for violin, cello, larger for bass.
No. 3 Turn down work for the place for rings, many sizes.
No. 4 Make up rings, back and front.
No. 5 Swedge on rings.
No. 6 Turn down in lathe the ends square.
No. 7 Drill a hole for the square end of the button screw.
No. 8 With an end mill make mortise for stick tenon.
No. 9 With an end mill make mortise on back end for the pearl eye.
No. 10 Pound the square end of button screw into the button.
No. 11 With special mortising tool over screw remortising button.
No. 12 Put in pearl eye in back end of button.
No. 13 Check to see if button screw runs straight.
No. 14 Check eyelet on button screw to be tight. Explain.
No. 15 Show the way to tighten eyelet screw.
No. 16 After the frog has been fitted to the stick, the sides of frog are curved, sanded and pumiced.
No. 17 File button to the octagon shape.
No. 18 Make notch on front ring of button. (Groove).
No. 19 Polish button.

Additional

No. 1 Preparing button stock in different sizes
No. 2 In lathe turn several sizes for violin, viola, cello and French bass.
No. 3 The width of wood showing between rings: violin and viola, 8 mm; cello, 10 mm; and French bass, 15 mm.
No. 4 Size for ring width: front ring, 4 mm; back ring, 3 mm. Violin, viola and cello same.
No. 5 Size of rings: inside diameter various, according to stick sizes.
No. 6 Season wood after turning, put on rings in summer or with a heated cabinet.
No. 7 Swedge rings on button stock.
No. 8 Sizes of rings, various, pound on tapered rod to enlarge metal.
No. 9 File metal on end to touch all around wood part of end tenon of stick.

WINDING SILVER WIRE

Condensed

No. 1 Get winding machine ready, put in vise.
No. 2 Get ready knife, two scribers, tweezers, diagonal cutters, burnisher, box with tiny wood dowels, liquid glue, hammer, twist drill, breast drill, steel blocks for holding wire in box.
No. 3 Wire, silver, for winding, get ready and expose the end.
No. 4 Leather glove to use when winding. Drill in two places on stick.
No. 5 Put chamois on stick heel end and also for that which hits on the other part of frame.
No. 6 Put cardboards with center hole on stick as it goes into the first opening; keep going to the other side and put cardboards there.
No. 7 Put the winder with clamp on heel with the chamois on both parts where it goes through uprights.
No. 8 Put the clothespins on other end against upright with hole.
No. 9 Form silver wire bend with tweezers three millimeters.
No. 10 Put the bent part in the upper hole drilled in stick.
No. 11 Glue small dowel and hammer it in where end of bent wire is placed.
No. 12 Take knife and cut off the part of the dowel sticking out.
No. 13 Start winding the silver wire onto the stick.
No. 14 When getting to the other drilled hole, put clamp over the wire on the stick to hold into place.
No. 15 With cutters make the end as long as it can fit in hole plus three millimeters bent-over part.
No. 16 Glue dowel and hammer it in drilled hole with bent part of wire.
No. 17 Take knife and cut off dowel part sticking up and burnish down.
No. 18 Take stick out of winding maching, saving the chamois.
No. 19 Put wire away wrapping carefully.
No. 20 Get leather ready for gluing.
No. 21 Glue leather near frog first and tie with string.
No. 22 Glue small strip of leather on other end of winding.
No. 23 Take string off after it is dry and clean up. Polish.

A PLEA AND A SUGGESTION

for a guide, standard, principle or measuring device to compare and evaluate completed musical bows.

This need of a measuring and comparing device for bows has long existed and the following could be used as a starting point to secure one.

Most bows are weighed to give their overall weight in the usual avoirdupois weight in ounces and grains, or on the metric scale in grams. The avoirdupois weight is used here because there are seven thousand grains in one pound and in one ounce there are four hundred thirty seven and one half grains; this gives larger whole numbers to work with.

It is necessary to start with a completely new approach to the problem as very little from the past can be learned, as an insignificant amount has been written regarding the relationship of the overall weight of the bow to the balance and tension of the bow.

In the past various methods were used to get the balance and the tension of bows, but none have been heard of being used in conjunction with, and the comparison for, a detail representation in actual figures to express the relationship between them.

A most important fact must be understood before analysing the comparative figures on the weight, balances and tensions of the bow as these are definite and distinct; being measurable by a good weighing scale, but a most subtle and little understood subject must be explored further, that is the "FEEL" of the stick, if this was measurable on a weighing scale much could be explained, but as it cannot be at this time but probably at some later date, it will be necessary to say that every stick is tried for that "FEEL" many times from the freshly cut stick to the finished bow. The "FEEL" so important to a bowmaker as a great many sticks are discarded for lacking this necessary and essential quality to form a good bow.

For an analysis in a very limited way of the so called "FEEL" of the stick, when the stick is bent outwardly the "FEEL" is how fast it returns to its original position when released and the stick that shows signs of sluggishness is discarded. The stick that shows the fastest return to the original position is best and shows up in the completed bow as beinga better bow. Now this does not in any way relate to the actual tension of the stick but only on the quickness or slowness of the return effect or "FEEL".

So many players will say this or that particular bow has perfect balance and has just the right felxibility. Another player will say of the same bow that it is tip light or tip heavy and will also say it is too weak or too strong. Every book and catalog mentioning this subject stato that each person playing an instrument has their own opinion on what is perfect weight, balance and tension which must be taken as a truth, for no two persons have the same physical make-up, mental outlook or exactly the same instruction and naturally this

makes their wants different; but a bowmaker who wants to keep records should have a more stable foundation to draw on than a personal opinion based on a persons playing needs but rather he should have the broad base of a correct weighing device and a standard from which can be recorded the necessary data for making comparisons not only for his own bows but also bows of famous makers and others, to make the comparisons that are even more important to a bowmaker.

It is easy to realize that some persons will say that it cannot and should not be done, but this is like saying that the latest improvements in transportation and living requirements should be discarded.

When first starting to make bows, my teacher or more properly I should call him , a coach, was Alfred Lanini of San Jose Calif. He showed me his way to get the overall weight and his very novel way to get the balance weight and tension weight of the bow, and when my preparatory stages were over and when starting to sell bows, it was then I started to record this data for each bow and a number was stamped on each bow, and as time went on many other features were added to the data, such as the weight of the frog alone, and with the button, and the button alone; the stick in all its working stages; and there was one particular thing I wanted to find out, that is what percent the winding adds to the tip weight of the completed bow; and after an analysis of several hundred bows of my own make, the percentage found was close to forty percent of the actual weight of the winding is added to the tip weight of the bow. There are many other facets to learn from the comparisons of the records, for instance the button; this is a very important phase, as a heavier or lighter button can be of extreme importance if you are working for a particular overall weight and balance

These remarks are made for the purpose of showing that the keeping of records on each bow is not just for that alone but for a more important purpose of making better bows and this brings us to the new comparative stage, that is the relationship between the overall weight of a bow and the tip weight or balance weight and tension of the bow.

Now the perfect weights should be set forth, but it is perfectly obvious that these measurements can only be used as a base for comparison and as we stated before, someone would say our symbolic bow is too heavy or too light, too much tip weight or too little, too much tension or too weak and we would again agree this is so for them, but a symbol is needed and what is put forth is in the light of necessity for future discussion and the availability of this present work as forming a basis or foundation for bettering the bowmaking as an art.

The perfect bowsymbols are the same for all weights of bows from the lightest to the heaviest.

The symbol for the completed bow overall weight is the number (5)five.

The symbol for the bow balance weight (holding the bow in playing position) is the number (8) eight.

The symbol for the tension of the stick is (128) one hundred twenty eight.

Let us take an example of a perfect bow according to the symbols and subsequent proof using a completed bow; haired, wound and ready to use on the instrument with the overall weight of two ounces and eighty two grains avoirdupois weight.

PERFECT BOW

Weights, Symbols, Proof.

	Weight	Perfect Balance	Tension
Symbols	5	8	128
Weight	2 oz and 82 grains	3½ oz	3½ lbs less .8 of one grain.
Above weight in grains	957.0	1631.2	24499.2
Proof	191.4	191.4	191.4

Next is an example of a completed bow taken out of stock on which the proof does not agree with the perfect symbols. Bow # 871 Violin Silver Octagon.

871 completed 2 ounce bow not perfect symbolically and please note the proof.

	Weight	Balance	Tension
Symbols	5	8	128
Weight	2 oz.	3½oz & 40 grains	3 3-8 lbs.
Above weight in grains	875.0	1461.8	23625.0
Proof	175	182.725	184.57 Plus

On my tables for a 2 ounce Symbolically Perfect Bow the balance should be 3 ounces and 87 grains while a 2 ounce and 39 grain S.P.B. should have the above 3½ oz. and 40 grains for perfect balance, so on my records of # 871 there is this notation, "balance for a plus 39" The tension is also a little overnormal but with the extra plus 39 on the balance it makes a good playing bow.

It will be seen from the foregoing how the symbols can be used in a practical sense, but to make all bows symbolically correct would not be practical nor advisable for reasons previously stated.

If we consider where the name "bow" comes from, that is, archery, which was at one time needed for most of the necessities of life, we will find much can be learned from this former skill and now a hobby, by both the musical bow user and bow maker. In archery of the present day your archery bows come in the tensions suited for your own personal needs and the arrows you can get with a definite weight, balance and tension. Much also can be learned from archery about the necessity of "warming up" the bow for proper use in many situations.

JOHN ALFRED BOLANDER

JOHN A. BOLANDER, JR.
2814 ALUM ROCK AVENUE
SAN JOSE, CALIF. 95127
U.S.A.

The photograph below was sent in by Mr. Frier of the Crossroads Violin Shop, 229 Lark Street, Albany 10, New York. He says "I spent two weeks at the Bavarian State School for Violin Making at Mittenwald last May. The photo shows one of the classrooms. There are presently two American students at the school."

MASTERTONE

by P. F. Wright
Author of Violin Data

Mastertone is the superior quality a master violin maker imparts to the tone of his instrument. This is the crowning feature of a masterpiece, which distinguishes it from the ordinary and commonplace.

Since the days of the classical makers thousands of men have devoted themselves to the violin maker's art. Some fine instruments, with wonderful playing qualities, have been produced and, as one generation after another has passed, illustrious names have been added to the list of great violin makers. But these are exceptions. The majority have been persons of ordinary attainments whose labor produced only haphazard results.

Among the latter class there have been, and always are, some who harp about the lost Cremona secrets and who endeavor to duplicate accidents, laboring under the delusion that this can be done. Varnish, pickling processes, graduating by the light of a candle, proportioning wood to air space, tuning the top and back to certain musical notes, swabbing the inside with white of egg, freak bass bars and rattlesnake rattles are but a few of the long list of discoveries.

Whenever a haphazard genius hits on an accident, somewhat better than his previous efforts, he announces the discovery of a lost Cremona secret. Failing to duplicate it, he remains more or less out of the picture until another accident is stumbled upon, when a lost Cremona secret is again broadcast. Such fellows are as perennial as the color of autumn leaves. Their theme is romantic enough to appeal to the press as good copy, and the persistence with which such fictions are published leads a credulous public to believe that there actually were Cremona secrets.

The merits of these different discoveries is about the same in each instance. That is, none of them are of

any value. Rattlesnake rattles are no more silly than in computing of cubage in vibrating wood and air content impractical. Violins are not designed in that way. Yet the latter stirs the imagination of the intelligensea, while the former appeals to country fiddlers as a potent charm.

In no case is the bugaboo over Cremona secrets more misleading than that of relative tone values typical of the classical makers. Instead of being the result of profound research, the instruments these artists made are a record of evolution in musical taste. Whatever acoustical studies may have been conducted were incidental to meeting the demands of the period in which each worked.

In order to visualize this, let us turn back to the sixteenth century when the string instruments in vogue were of inferior resonance. Among bands of humming viols and tinkling lutes a roaring Gasparo da Salo or Maggini violin was as unwelcome as the proverbial bull in a china shop. It is easy to imagine how violin devotees of that day were berated. They no doubt were accused of having leather ears, of being fools, of being freaks, of being insane, etc. Slurs that have been cast upon saxophonists during the past thirty years supply a parallel illustration.

Andrea Amati, aware of the objection to Brescian instruments, devoted his talents to producing violins more compatible with the musical taste of his time. He modeled the top and back with lovely reverse curves which were not only beautiful to behold, but also reduced the vibrating area to such an extent that the tone was small and pinched. His instruments were favorably received and his fame spread to distant parts of Europe. A notable order that he filled was one for King Charles IX, of France, which was for twenty-four violins, six violas and eight basses.

A hundred years or so of familiarity with the violin awakened a better understanding of its place in music with a corresponding demand for fuller tone values. Nicola Amati complied with his "Grand Amati". This evolution toward bigger tone continued until both Joseph Guarnerius and Stradivarius met its demands, each in his own way. The "Long Strad" was one effort to be followed later (1700 to 1725) by the "Grand Strad".

Although their models were different, each of these great artists combined power with refinements lacking in the early Brescian instruments. Their work, including that of their pupils, indicates that the effect of the arch of violin tone was recognized. The arches of these makers, although differing somewhat, were designed along lines permitting free vibrations.

Had the violin makers of that period understood the importance of suitably distributing the wood, there no doubt would have been greater uniformity in the acoustic value of their instruments. Records of many old instruments have been obtained and, although measurements from the most celebrated are used for reference in modern computations, the bulk of the evidence is so at variance that graduations found in these appear to have been due to chance rather than to any well developed theory.

There is reason for this uncertainty of graduation revealed in old violins. In those days necks were shorter than they are today and the musical pitch was also lower. The resultant low tension in the plates made full tone value, as we now understand the term, impossible. Therefore, wood might be distributed in almost any manner and its effect on the tone was minimized. When the problem is viewed in this light it seems marvelous that any of the old instruments should be adaptable to modern demands. We can afford to be grateful for those occasions when the old masters were careless enough to leave ample wood in the tops and backs. We should be thankful for this and find no fault with their manner of distributing it.

In spite of age-old prejudices, there has never been a time when so large a proportion of violins being built were of superior tone value as today. Violin makers now possess the accumulated experience of four hundred years and also a better knowledge of violin acoustics than ever before.

Violins may be classified as belonging to any of several types and, although the master violin maker may confine himself to one of these, he never makes duplicates. Each is a masterpiece. A gem, with an individuality of its own, that defies duplication. Besides its individuality, each masterpiece also has a history of its own. The story is of complex origin that begins long before leaving the master's hands; a finished violin for the artist to fondle and caress to the delight of his audience. In order to see this unfold let us pay a visit to the studio of Mr. Herman Weaver.

On the work bench is a Mastertone violin in the process of making. The lines and arches follow, very closely, those of Joseph Guarnerius. The scroll, hanging near by, is not from stock but one that Mr. Weaver has carved from a choice and beautifully marked piece of maple. This has not yet been joined to the body. In fact, the body is not entirely assembled. The back is finished. So also are the ribs, blocks and lining which have been put together. The linings have been joined perfectly to the blocks and the whole interior is as carefully finished as the exterior will eventually be, when it is ready for the superb varnish he uses. There is not a spot, stain or blemish of any kind to be seen--not even a drop of glue.

The top lays nearby. It is of amazingly fine, straight grained spruce. The grain is so very fine and close that, where it not for being told differently, the visitor is ready to believe that Mr. Weaver rediscovered Jacob Stainer's grove of Swiss pine.

The top is about to be graduated. The first groove of this operation has been cut just inside the line where the ribs join. Distribution of wood being of prime importance in determining the penetration of violin tone, at the time of designing the lines and arches, tables were plotted. The position of these contours was worked out mathematically. From these theoretical thicknesses departures, suggested by experience, to compensate for the peculiar textures of both top and back were made. Thus, the graduations of each violin become a separate study. In Mr. Weaver's case, callipers are used which register to 1-10 of a millimeter of 4-1000 of an inch. Where extreme care, such as this, is used, it is any wonder that a superior instrument is the result?

The wood used in this violin has been gathered from spots extending from the Cascade Mountains of Washington to the State of Maine. An old building, erected in Colonial days, contributed a part and a piece of antique furniture another. That which came from the virgin forest was the soundest of strictly prime timber, cut at the most favorable season of the year. After being worked into stock sizes, for violin maker's use, it has been seasoning for years in dry, but well ventilated, lofts.

Mr. Weaver knows the history of each piece and takes pleasure in relating it to the visitor. The top has one story, the back another, ribs another, the end blocks another, the corner blocks another, the linings another, the scroll another and, by the time it is completed the bass bar and sound post will each have contributed a story.

Although this particular instrument is very much of an all American product, wood from European sources is conspicuous in others. Partiality to any locality plays little part in the choice of these materials. The question uppermost in the master violin maker's mind is, how to combine different pieces of wood to produce the most perfect instrument? It is not unusual for a choice piece of wood to repose in the rack for years before another turns up to combine with it to suit his taste. Thus each piece of material, used in the construction of a masterpiece, endows it with history even before its intimate association with temperamental, and sometimes trafic, musical career begins.

On Mr. Weaver's desk is a letter relating to a violin at the time that it took its rightful place in musical activities. It is from Europe and in it the writer acknowledges receipt of the violin. Briefly, the story is as follows: The writer, a musician who had been in this country for a number of years, tested one of Mr. Weaver's Mastertone violins and became very attached to it. At about the same time he was offered a position in his native country which he accepted. Although he was profoundly impressed with this violin, he had not yet outlived his early prejudice for things European. He tested violins in every market at which he stopped along his route, without finding one which suited his tastes and purposes as well. Having become convinced, against his will, he ordered it sent to him after reaching his destination.

Mr. Weaver's studio is an interesting place and the variety of things to be learned about violins changes on each visit. A prospective customer is testing some violins. One is a Weaver Mastertone and four or five others are old masterpieces, of which there is always a representative stock on hand. Whether the price, the best instrument for business purposes or the gratification of his own taste is the controlling motive in his thoughts, is not known. The significant thing is that he alternately plays upon Mastertone and then upon one or another of the old Masterpieces. Figuratively, he is playing Mastertone against the field.

While this is going on another gentleman enters in a highly agitated frame of mind. He has with him a bow that has been broken. It is a genuine Guillaume that he values above price. To restore it requires the making of a new head that must be spliced for some inches along the remaining portion of the stick. The artistic manner in which Mr. Weaver accomplished this, while preserving the original balance and spring, was a marvel to all who were fortunate enough to observe the work, and a matter of supreme satisfaction to the owner.

Restoring attracts an endless variety and there is a story of interest attached to each instrument. One time it is a Nicolas Amati to have the peg holes rebushed and to be generally overhauled. Another time it is a Gaspar da Salo viola for bass bar and general repairs. Then a pedigreed Joseph Guarnerius, valued at $30,000, arrives for general repairs.

On another occasion an old Italian cello is brought in. There is no pedigree and the name of the maker is unknown. Nevertheless, fragments of history accompany it.

The lines are good. The wood is very old--probably not a day less than two hundred years. The varnish and certain tricks about the linings and blocks are characteristic of the old Italian makers. It has been repaired on four different occasions by as many different workmen and the work of each is distinguishable in the order in which it occurred. The graduations are crude but, fortunately, both top and back have been left heavy in wood so that there is

leeway for proper distribution.

Another instrument revealing the uncertain ideas of the old masters regarding wood distribution, was a Grancino which had been smashed to kindling wood. Even the bass bar had been driven through the top. When this violin left Mr. Weaver's hands it had not only been so cleverly restored that no indication of the accident was visible, but the tone had been so vastly improved that the owner could hardly believe it to be the same instrument.

The stories of two basses of American make may interest the reader. One was a Prescott which was in need of almost everything in the category of restoring.

During the early history of the United States, before organs had come into general use, string basses were extensively employed in church choirs and the making of these instruments was quite an industry in New Hampshire, during the early part of the last century. Those made by Dea Abraham Prescott were of high repute and, on account of their superior tone, are much prized by bass players today.

The Prescott bass has a novel feature in its design. At the lower corners, instead of the ribs being joined in an angle, one terminates in an almost complete circle of very small diameter. While this does not affect the tone or materially enhance the symmetry of outline, it is a trick that no violin maker cares to imitate. The more experienced he is in bending ribs the greater is his respect for the mechanical genius of Prescott.

Another remarkable American bass encountered in Mr. Weaver's studio was that by George Gemunder. During his lifetime he made but two basses, one of which has been destroyed. Hence, this is the only string bass in existence built by him.

It is a copy of Stradivarius. The maple in its back, ribs and neck were selected with the same care, as to figure, as that bestowed upon his violins. Every detail, including the delicately carved scroll, is carried out with precisely the same degree of perfection as found in his smaller instruments. And the varnish, also, is the same as used upon his violins. The writer has never seen another bass that compared with it in beauty.

The top wood is of American white pine with two holes that have been plugged. A casual observer might overlook this. But any violin lover, who is looking for such things, can find the plugs with ease. Gemunder was clever enough to have concealed them more effectually, had he chosen to do so. It so happens that this wood came from the timbers of a noted old building. At the time of its erection the frames were held together by wooden pins. That Gemunder plugged these pin holes in such a manner as to be easily found, impresses one with the idea that he must have done so purposely, in that the story of the instrument's origin would be obvious.

What has been told indicates, in a general way, things to be seen and learned at Mr. Weaver's studio. Those mentioned did not all occur on the occasion of one visit, nor has all that transpired on any one visit been related.

Four hundred years of violin history, progress in the art of violin making, progress in its acoustics and in its design are gathered together here. Lessons gleaned from the life work of Maggini, Amati, Stainer, Guarnerius, Stradivarius, Lupot, Vuillaume and the more recent masters are all included, and the most salient points coordinated in Mastertone.

There are no lost Cremona secrets exploited to befuddle the mind of the visitor, for the advantages of the best instruction, intensive study in violin acoustics, rare native talents and mature experience place Mr. Weaver in a position where he has nothing to conceal. He is a master violin maker and any violin lover will be well repaid for visiting him at his studio, the home of MASTERTONE.

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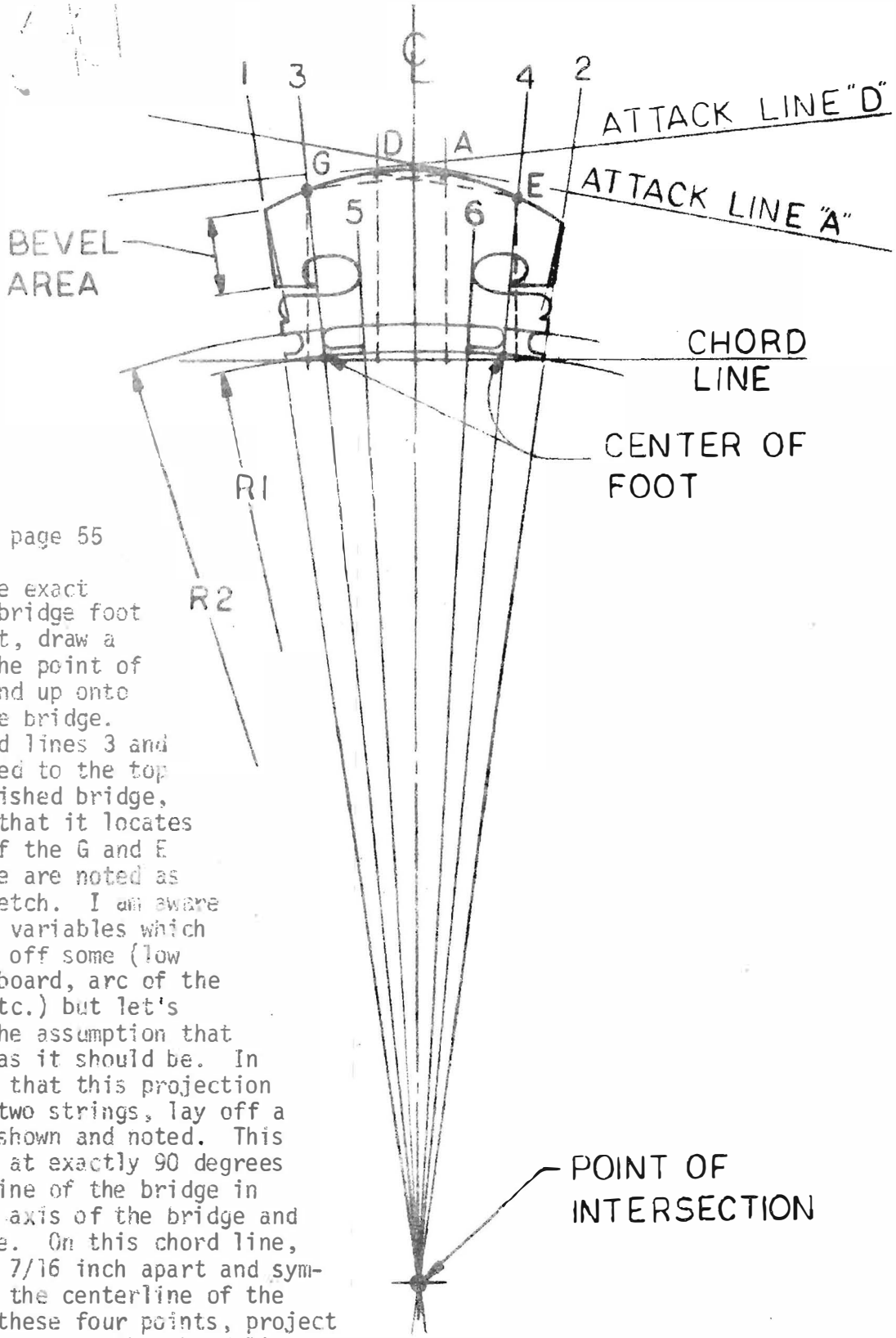
the above artical is reprinted by permission from the Violin Makers Journal of British Columbia for March 1963 pages 27 to 30



Continued from page 55

Now, locate the exact center of the bridge foot From this point, draw a line through the point of intersection and up onto the face of the bridge. This is labeled lines 3 and 4. If projected to the top arc of the finished bridge, you will find that it locates the position of the G and E strings. These are noted as such on the sketch. I am aware that there are variables which can throw this off some (low or high fingerboard, arc of the fingerboard, etc.) but let's proceed with the assumption that everything is as it should be. In order to check that this projection locates these two strings, lay off a chord line as shown and noted. This line should be at exactly 90 degrees to the centerline of the bridge in order that the axis of the bridge and violin coincide. On this chord line, lay off points 7/16 inch apart and symmetrical about the centerline of the bridge. From these four points, project lines at 90 degrees to the chord line, up to the top arc. These are shown by dash lines. From G to E, measured parallel to the chord line, should be 1 5/16 inches. Now, you can see the importnace of proper string spacing from the theoretical standpoint and how it comes to be 7/16 between strings.

Continuing, you see that the arc made by R2 terminates at the center of the foot and tangent to lines 3 and 4. Further, the tongue of the inner loops will be beveled off the have the point touching lines 3 and 4. From the outer face (lines 1 and 2) to this point on lines 3 and 4, will be close to 9/32 inch. This should be used when fitting up, since you do not have this line visible to work to.

Now, consider lines 5 and 6. You notice that they tangent [touch] the inner toes of the feet, and if a line is projected onto the bridge, they will also be tangent to the inner loops [holes] of the bridge.

Radius R2 is common across the bridge to the tangs and under curve. This is clearly shown on the drawing. One place that an inexperienced maker usually has trouble is in the setting of the string heights. For gut strings the accepted standard is that the G should be 3/16 inch above the end of the fingerboard and the E should be 1/8 inch. Nothing is said about the D and A. These should be set as shown by the lines labeled "Attack line D and A" . These two lines represent the bow hair as it passes over the strings. You see dash lines connecting the D and E and another one connecting the G and A. The attack lines are parallel to these connector lines. For Attack line "D" the clearance on the G and A is about 1/16 inch. The same holds true for the attack line "A" in regards to D and E. It is apparent that with this clearance, any two strings can be played, or a single one, without hitting any other one.

In finishing the bridge, the arc R2 should be finished so that it is a radius that closely follows the arch of the belly. The toes should be cut down to approximately 1/32 inch thickness. Along lines 1 and 2 there is a taper or bevel line shown. This is cut on both the front and rear faces of the bridge. It projects from the corner formed by the top arc and lines one and two down to the inner nick of the tang. To see this, lay a straight edge on that line on the drawing. This bevel is made with a sharp knife and if the knife is really sharp, you won't need to sand it, since the cut will be smooth- and shiny.

For the string grooves, use a small round file and inlet the strings to a depth of about one half their diameter. On the rear face of the bridge and in the bottom of the string groove, make a small radius to allow the string to slide smoothly on the bridge when tightening it up. However, don't make this radius on the front face of the bridge. There are some who say to rub a soft pencil in the string grooves to lubricate them. This is a dangerous thing to do, because if the bridge tips forward in tuning, the lubricated grooves can cause it to flip out from under the strings. I suggest that the grooves be left dry. A properly made groove will not cause a string to fray or bind.

In finishing down the bridge, leave the edges clean and sharp. Don't round them off. Rounded edges will give it a clumsy look. The sharp clean lines will add beauty to it.

Often times when tone problems are encountered, the repairman looks in the wrong spot for the trouble. If the tone is sluggish and "Not getting out of the instrument" it could be that the bridge is too thick. But I have often found a bridge to be cracked and held together only by the pressure of the strings. Once the string pressure was released, the bridge fell apart in two pieces. This cracking can be caused easily by straightening the bridge when it tips forward and using too much "muscle" to do it. If in straightening, you find it is difficult to do, drop the string tension a bit. Better to retune than rebridge. On the other hand, you will come upon violins whose tone is shrill and harsh. As often happens, these instruments will be found to have thin tops. It will pay to first try a heavier and softer bridge in order to slow it down and mute it a bit. Always, when you are confronted with tone problems, check the bridge first. It is right there in the open, easy to get at and may solve the problem right away.

When you set a bridge after finishing the cutting, you must consider the sound post. The post must be adjusted to the bridge and if it is too hard, too long, too short, too thick or too thin, it must be replaced. When they are properly adjusted to each other, one rule should be adhered to and that is; "NEVER MOVE A POST OR BRIDGE UNLESS IT IS ABSOLUTELY NECESSARY". I have put that in capitals, so that it may stick in your mind. I know of violins that have had their post and bridge in place for 20 years and believe me, it would be worth your head if you should let the owners see you with a post setter in your hand. Each time a post or a bridge is moved, the whole violin has to get readjusted. If for some reason you must take the bridge off, say for inspection, use a bridge jack to assure that you get it back in the exact position it came from and to be sure that the post does not fall. Some makers use an old bridge to prop up the strings, but this is a makeshift affair, when a jack sells for so little and is more efficient. It is a trying thing to attempt to convince some players of this rule of leaving the post and bridge alone, because they are constantly attempting to get a better tone by shifting the post and bridge around. Of course, the poor violin never gets a chance to settle down and come into its own before these fellows are at it again with a post setter, tapping away trying to get it in a better spot. If this isn't successful, they haul out a fistfull of old bridges and start switching from one to another. Murder, that's what it is!!! To tone. But, I am sure that there are a lot of people who will disagree with this. I know some who will disagree with anything said about a bridge.

One thing more. You will notice that I have left off the heart of the bridge and not mentioned it. I have done so for a purpose, that being that I don't know anything about it. I have spent a lot of time attempting to find some relationship of this area to others, but as yet, have not been successful. These areas vary quite a bit in design, so if any of you fellows have any idea of why the heart is shaped as it is, etc. I would like to know it.

This has been the toughest article that I have yet written for the Journal. If at times it is not exactly clear in the text, please study the drawing and a blank. The best thing I can say about any writer is that he made me think. I hope this will do the same for some of you fellows.

BEN F. HARRISON

A FEW WORDS ON ADVERTISING

This Journal is the eight-eight page 1971 summer issue. It is being finished in ~~February~~ MARCH of 1972. The remaining issues for 1971 will follow. We will eventually get caught up, and you will get your Journal ahead of time for a change. and that's no joke!

actually it is ninety-four pages

Just a few of the many advertisements that were contracted for appear in this issue. They were printed before the latest changes in postal rates or they would not be here either. For the time being, no display advertising will be used in future issues of the Journal. There are several points which must be cleared up with the Post Office, Internal Revenue, and the advertisers. If all the advertisers or potential advertisers, both paid and unpaid will take the time to write to me, we will try to resolve some of the problems. For the present, no display advertising is planned. I feel the best way is to have a section of names and addresses of people and companies willing to send a catalogue or list to members who request them for a minimum cost to the advertisers and the Journal won't have to pay the increased postal rates for a large display advertising section. What do you think?

If you have any ideas, please write and tell me. I am not a mind reader. The main effort should be aimed at helping the maker with information on where to buy and if in the process it helps members to sell their products, the Journal and subsequently all the association will benefit. My main effort is to get out a Journal and have some time left over to write an article or two on how to varnish fiddles.

Your Friend,

Bill Reid

Display will start again in January - see the second fly leaf of this half (october)

PROF. GIOACCHINO PASQUALINI, President of A.N.L.A.
(National Association of Italian Luthiers)

Editors' note: This article by Mrs. White was translated from an Italian newspaper at Don's request.

In the Jan. Feb. issue of the Violin Makers Journal we referred briefly to an event of the greatest interest to all Italian luthiers, artists and musicologists, and to luthiers all over the world. This event was the presentation last summer by Dr. Gioacchino Pasqualini of his priceless collection of antique and modern musical instruments to the "Accademia di Santa Cecilia" (St. Cecilia Academy, Rome, Italy). This magnificent gift was made by Dr. Pasqualini in honor of his only son, a fine, highly gifted boy of brilliant promise, who died suddenly and tragically in his teens.

Photographs were taken of the collection as it was arranged in the home of Prof. Pasqualini in Piceno, Italy, in his "Instrument Studio" on the day it was presented to the Academy.

The collection was later moved, along with some of the furniture and cabinets, to St. Cecilia's Academy, and now forms an important section in the Academy museum.

M. o. Bustini, president of the Academy, wrote a long letter to Dr. Pasqualini, expressing the gratitude of this important musical institution for so generous a gift. The full text of this letter appeared recently in "L'Artigianato D'Italia." In appraisal of the gift M. o. Bustini said that though in the field of Arts, donations were not uncommon nor were examples of praiseworthy endeavor. But rarely did one hear of the two combined, in the gift of a collection that was the fruit of a live-time of endeavor; by one who was both a competent collector and a great student; and who had shown the greatest tenacity of purpose in gathering these instruments, often against great odds.

When I wrote to Dr. Pasqualini asking for his permission to publish the photos of his collection in the Journal he replied promptly, and courteously as always, freely gave his consent. He said that he has always held the Journal and its editor, Don White, in the highest esteem, and would be pleased to have the pictures with their descriptions in our magazine. As can be seen from these pictures, it is a real museum of musical instruments, antique and modern.

From descriptions of the collection one learns that it comprises instruments of all ages; of all families, bowed, keyboard and percussion; of all nationalities. It also includes over 500 bows and bridges. The instruments are all in a state of excellent preservation. Many of them are so rare as to be almost unique. By studying the collection one learns the history of the development of musical instruments to their present form. By playing them, even the oldest, so well preserved are they that one can hear their original tone qualities and strength.

The official opening of the collection took place on December 3, during the Conference of the General Assembly of Italian Luthiers at Rome. Impressive ceremonies marked the occasion, attended by a distinguished gathering of notables including Allesandro Bussini, president of the Academy, Renato Fasano, music director of the Academy and Dr. Guiseppi Ceralli Irelli, senator.

After the formal presentation, Prof. Pasqualini as Curator of the Academy Museum, conducted the guests around his collection with informal remarks concerning the various instruments. The whole of the memorable occasion was televised and later shown on a number of Italian T.V. programs and in moving picture houses.

In response to my request for a short biography to be included with the account of his gift, Dr. Pasqualini replied that he would send one as soon as possible, meanwhile referring me to the "Universal Dictionary of Violin and Bow Makers" for some information about him. So I shall quote from this very brief outline since Dr. Pasqualini has not yet sent his own biography. He must be a very busy man, and I did not give him nearly enough time.

"Gioacchino Pasqualini was born at Ascoli, Piceno, 1902. Went to Rome, 1919. Studied violin playing at the Cecilia Academy. Won diploma, 1926. Member of the famous Augusto orchestra in that city. Professor at the same Academy, 1934. Made assiduous research in electro accoustics applied to the resonance of violins. Author of several booklets on the subject which have been accepted as authoritative by various scientific sources."

These booklets have been translated into several languages. If there are any English translations perhaps in a later Journal they could be published. They should be of the greatest possible interest to many of our readers, and perhaps prove helpful in their search for the "Perfect Tone".

There is little I can add to the above brief sketch of Dr. Pasqualini. From our personal experience of him, we found him to be most generous not only in big things like his gift to the Academy, but in smaller gifts he presented

to his friends. He sent us only this Christmas, a beautifully bound book of fine photos on various subjects, has sent several pamphlets of various photos which apparently he publishes just as gifts to friends. I could name other instances of his constant generosity. He is generous with his time also, writing promptly and with great courtesy, and a kindly man, judging by what he says in his letters. I hope another time we can give a little more of his history as an artist and a physicist.

Below and on the following page are illustrations of the "Gobinetto armonico" (instrument room) taken on August 13, 1962, the day on which Dr. Pasqualini presented his collection to the St. Cecilia Academy.

Partial view of the central and left walls

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Partial view of the central and right walls

View of the back wall and part of the left

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